

SUMMARY (Abstract)

DNA FRAGMENTS OF THE METHYLOTROPHIC *Pichia pastoris* YEAST *ICL* GENE.

This invention relates to the field of recombinant DNA technology. The present invention relates to the isolation of a new DNA regulatory region, able to lead the expression of heterologous proteins in *Pichia pastoris*.

In one of its aspects the invention is related to the isolation of a DNA fragment that contains the isocitrate lyase encoding gene (referred here as *ICL*) from the yeast *Pichia pastoris*. In another aspects, this invention describes the use of a fragment derived from the described gene, which lead the expression of a foreign gene, when both are incorporated in a DNA vector and introduced in the host yeast *Pichia pastoris*. In this way the protein of interest is efficiently produced using this DNA fragment.

In the yeast *Pichia pastoris* the expression of this gene is regulated in response to environmental conditions, such as the growth medium composition. The *ICL* expression is repressed when a carbon source like glucose is used, and induced when the carbon source present in the medium is ethanol or when the glucose is absent .

An additional aspect, we have also isolated a novel DNA fragment consisting essentially of the *Pichia pastoris ICL* 3' transcription termination sequence.